

Since basal-cell epitheliomas do not metastasize to the regional lymph nodes it is never necessary to remove these nodes when dealing with this variety of epithelioma. There is some difference of opinion as to the advisability of prophylactically dissecting out clinically uninvolved lymph nodes in cases of squamous-cell epithelioma. In the author's opinion, such prophylactic node dissections should not be done in the ordinary squamous-cell epithelioma; some huge, fungating lesions might call for prophylactic node dissection. Of course, if the nodes are involved, or if there is even suspicion of their involvement, they should be removed at the time the primary lesion is removed.

There is no need to speak of different types and degrees of treatment for epitheliomas of different pathologic classification such as that of Broders. For if the rule of bold and wide removal of tissue at the initial operation is followed, all that is possible will have been accomplished, regardless of the type. And nearly all of the patients will have been cured.

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Other Malignant Conditions Involving the Skin

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BASAL-CELL carcinomas, prickle-cell carcinomas and precancerous skin conditions occur a great deal more frequently than do some of the other malignant conditions involving the skin. Nevertheless it is important to briefly discuss a few of these relatively uncommon malignant conditions.

Malignant melanomas (melanocarcinomas, melanomas) are among the most malignant of all skin tumors. In general these develop from preexisting moles. The usual pre-melanotic mole is small to large pea-sized, appears to be imbedded in the skin, is non-hairy (although there are rare exceptions) and has a slate blue, blue-black or gunmetal color.

The signs of malignant change in such a mole are (1) increase in size, (2) increase in pigmentation, (3) the development of a crust, scale or small scab on the surface and (4) slight hemorrhage. The development of similar but smaller satellite lesions in the immediate neighborhood is of grave significance in prognosis because such lesions represent extension from an original lesion which is highly malignant. The gradual but steady development of a light to moderate brown macular pigmentation which extends peripherally in one or all directions from such a lesion is another phenomenon which represents a definite intra-epidermal extension of a highly malignant process.

Although malignant melanomas may occur on any area of the body, there are certain areas of predilection. These localities are the face, the portion of the foot covered by the shoe, and the subungual regions.

There are certain lesions which at times closely simulate malignant melanomas. These include pyo-

genic granuloma, pigmented basal-cell epithelioma, small subcutaneous angioma, irritated but benign pigmented nevi, the so-called blue nevus of Jadassohn, deeply pigmented seborrheic keratoses, and nodular subepidermal fibroma. Old hemorrhage in a cyst, callus or scar and traumatic tattoo marks from ordinary or indelible pencils or from ink must also be considered.

In most of these conditions, differentiation may be made clinically by an experienced observer, but if that is impossible, then it is imperative that the lesion be widely and deeply excised and that the material removed be examined by a qualified pathologist. If such a lesion proves to be benign, no further therapy is indicated. If malignant melanoma is present, wide and deep removal of the original site, including the underlying fascia, is indicated.

Multiple idiopathic hemorrhagic sarcoma (Kaposi): Generally starting on the feet or ankles, this neoplastic process presents bluish-red to purple-brown pigmented nodular lesions and plaques. These lesions vary in size from that of a pea to that of a lima bean or larger and present varying degrees of infiltration. At first they are usually found about the feet and ankles, less commonly on the hands. At the onset the lesions are generally discrete and multiple but later on coalesce to form infiltrated plaques. Still later similar, firm nodules develop on other parts of the body including the face, ears and trunk. In the final stages multiple, pigmented, hemorrhagic sarcoma involves the lymphatic system as well as various viscera.

The diagnosis should be confirmed by biopsy. Accepted therapeutic procedures are radiation therapy and the administration of arsenic.

Mycosis fungoides and the lymphoblastomas: There is a not inconsiderable group of neoplastic conditions which are termed the lymphoblastomas. These include mycosis fungoides, Hodgkin's disease, lymphosarcoma and lymphatic, myelogenous and monocytic leukemia.

Such disorders may originate primarily in the skin or they may start in the internal organs and involve the skin only secondarily. There appears to be a close relationship between the various members of this group, so close at times that an exact diagnosis as to type is not always possible.

In this group cutaneous lesions develop which may be non-specific in character. These non-specific skin lesions may be either local and relatively well circumscribed, or generalized. Thus the following non-specific cutaneous reactions may be found in association with the lymphoblastomas: (1) Herpes zoster, which is seen particularly in association with Hodgkin's disease. (2) Generalized pruritus which may exist with or without excoriations or with or without lichenification or thickening of the skin. Such a generalized itching is seen most frequently in Hodgkin's disease and must be differentiated from other conditions causing more or less generalized pruritus such as diabetes, nephritis, scabies, pediculosis, liver disease and bath itch. (3)

Pigmentation of the skin. (4) Generalized exfoliative dermatitis. This condition in some instances is non-specific but in most cases presents specific histopathological changes characteristic for the particular lymphoblastoma which is present. (5) A large group of ill-defined non-specific skin changes which resemble either psoriasis or eczema. Often the conditions in this group are seen in association with mycosis fungoides. (6) Urticarial skin lesions, bullous and pemphigus-like eruptions; fleeting, constantly changing and sometimes evanescent lesions belonging in the erythema group, as well as purpuric and hemorrhagic lesions. (7) Lesions of the mucous membrane with hemorrhagic, ulcerated or necrotizing features. These are seen especially in association with the acute leukemias.

Specific cutaneous changes also occur in association with the lymphoblastomas. Thus in Hodgkin's disease may be found solitary or multiple nodules or ulcers occurring in infiltrated plaques. Rare, however, is true Hodgkin's disease of the skin.

Frequently associated with mycosis fungoides are cutaneous lesions which have characteristics readily identifiable in microscopic examination but which clinically appear as a wide variety of lesions ranging from multiple definite cutaneous tumors of varying sizes and shapes to multiple plaques presenting more or less gyrate figures and simulating psoriasis or eczema. In rare instances the lesions may be tumors from the onset (the so-called *d'émblée* type). In other rare instances bullous or verrucous lesions may be present. In general the histopathologic picture is characterized by cellular infiltrate in the cutis composed of many different types of cells. Along with this are found pyknosis (shrinking with necrotic changes of the nucleus) and karyorrhexis (fragmentation of the nucleus).

In the various types of leukemias which involve the skin, whether they be of lymphatic, myelogenous or monocytic type, there occur variously sized purplish to violaceous cutaneous nodules. Mucous mem-

brane lesions frequently involve the gums and are of purpuric or hemorrhagic character. Multiple large purplish plum-colored and plum-shaped tumor masses may involve the face. In rare instances ulcerated tumors develop. In nearly all cases hematologic studies are of value and may lead the way to a correct diagnosis. In other instances pathologic studies of the cutaneous lesions may reveal the type of leukemia long before any changes in the blood are noted.

So-called lymphosarcomas include varying types of pathologic processes. While the expert pathologist rightly attempts to classify these conditions, for practical purposes this group probably represents an end stage of the various lymphoblastomas previously described—nodules, plaques, generalized exfoliative dermatitis, and ulcerated lesions—they occur both with and without evidence of hematologic changes.

The diagnosis of lymphoblastomas as to specific type often requires the cooperation of the dermatologist, the pathologist and the hematologist. Frequent blood studies including studies of the bone marrow may be necessary. Even so there will be a considerable group of cases in which no definite diagnosis as to type can be made either during the life of the patient or at autopsy.

The treatment of the various types of lymphoblastoma is very unsatisfactory. X-ray therapy, the administration of nitrogen mustard, arsenic, antimony, chaulmoogra oil, and radioactive phosphorus—all are palliative. The best that can be said for any of the present methods of treatment is that they may make the patient more comfortable. This is accomplished by the relief of the itching, and the temporary alleviation of foul-smelling necrotic and secondarily infected tumor masses. Pressure symptoms may be temporarily relieved and the growth of the tumor retarded. In general, however, it is doubtful that any patients are cured or that life is appreciably prolonged.

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